

2016 Upper Potomac River Smallmouth Bass Summary

Smallmouth bass are one of the most popular sportfish targeted by anglers on the upper Potomac River. Large sections of the river provide prime habitat for this aggressive and exciting to catch fish. The Maryland Department of Natural Resources (MD DNR) Freshwater Fisheries Program monitors the condition of the smallmouth bass fishery through a combination of juvenile, adult, and angler surveys.

Reproduction

Natural reproduction of smallmouth bass in the upper Potomac River has been monitored annually since 1975 by collecting juvenile fish using a shoreline seine at fixed stations from Spring Gap downstream to Dam 2 (Seneca Breaks). The average number of young-of-year (YOY) smallmouth bass from these seine surveys is used as an index of recruitment for that particular year-class. Unfortunately for 2016 the recruitment index score for the upper Potomac River was low. The average index score was 0.28 YOY/seine haul, well below the 39 year median score of 1.13 YOY/seine haul (Figure 1). Year-class strength is largely a factor of environmental conditions, primarily spring flow levels. High rivers levels in May 2016 were probably a major factor leading to this year's low recruitment index score. Stronger year-classes observed in the average 2015, 2012, and 2011 index scores have helped maintain a productive adult population in the river.

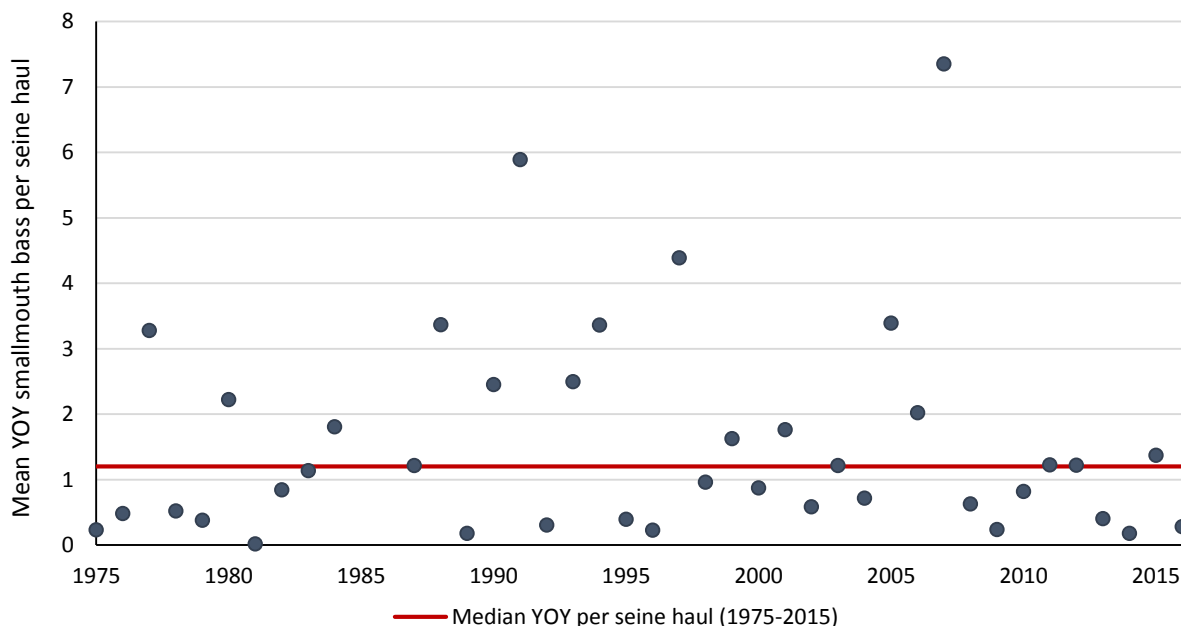


Figure 1. Average yearly smallmouth bass recruitment score (YOY/seine haul) for upper Potomac River (1975-2016).



(L to R) Juvenile smallmouth bass; fisheries biologist conducting shoreline seine survey

Fall Electrofishing Survey

Annual fall boat electrofishing surveys are used to assess the adult smallmouth population abundance and size distribution. A total of 877 smallmouth bass (>7 inches) were collected over 8.8 hours of electrofishing from 12 stations from Paw Paw, WV to Edwards Ferry. The average length of adult smallmouth bass for the upper Potomac River was 8.9 inches. Following trends observed in previous surveys, the upper sections of the river (Paw Paw, WV to McCoys Ferry) had a high abundance of smaller (6-10 inches) smallmouth bass (Figure 2). The middle (Dam 5 to Dam 3) and lower sections (Dam 3 to Edwards Ferry) had overall lower numbers of smallmouth bass, but fish that were larger in size (>11 inches).

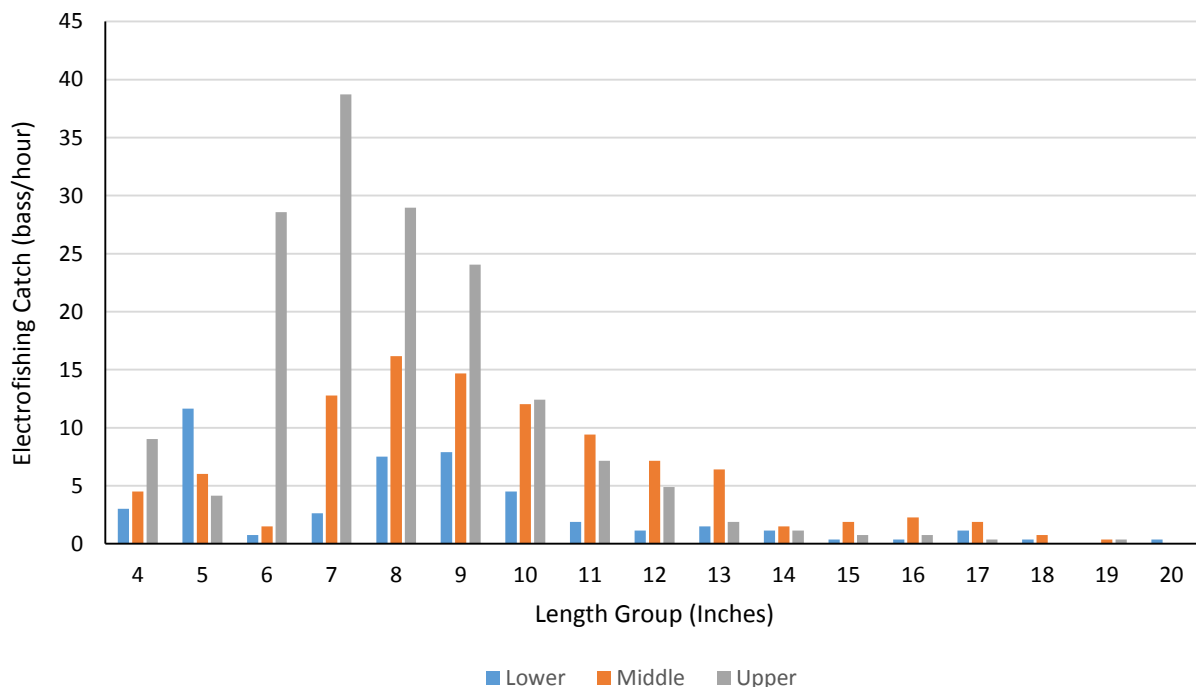


Figure 2. Size distribution of smallmouth bass from the lower, middle, and upper sections of Potomac River collected by fall boat electrofishing in 2016.

The combined 2016 catch rates for upper Potomac River smallmouth bass were slightly below average. Catch rates for smallmouth bass >8 inches averaged 75 fish/hour, a little below the 1988-2015 average of 81 fish/hour. Catch rates for smallmouth bass >11 inches averaged 20 fish/hour compared to the long-term average of 24 fish/hour (Figure 3). Mature smallmouth bass from older year classes leaving the population and average to poor recruitment in recent years are probably the driving factor in the 2016 catch rate. Low Potomac River flow levels in fall 2016 also made boat access to some sections with good habitat difficult. Smallmouth bass fishing for 2017 should remain good with catchable size fish still being plentiful throughout the river.

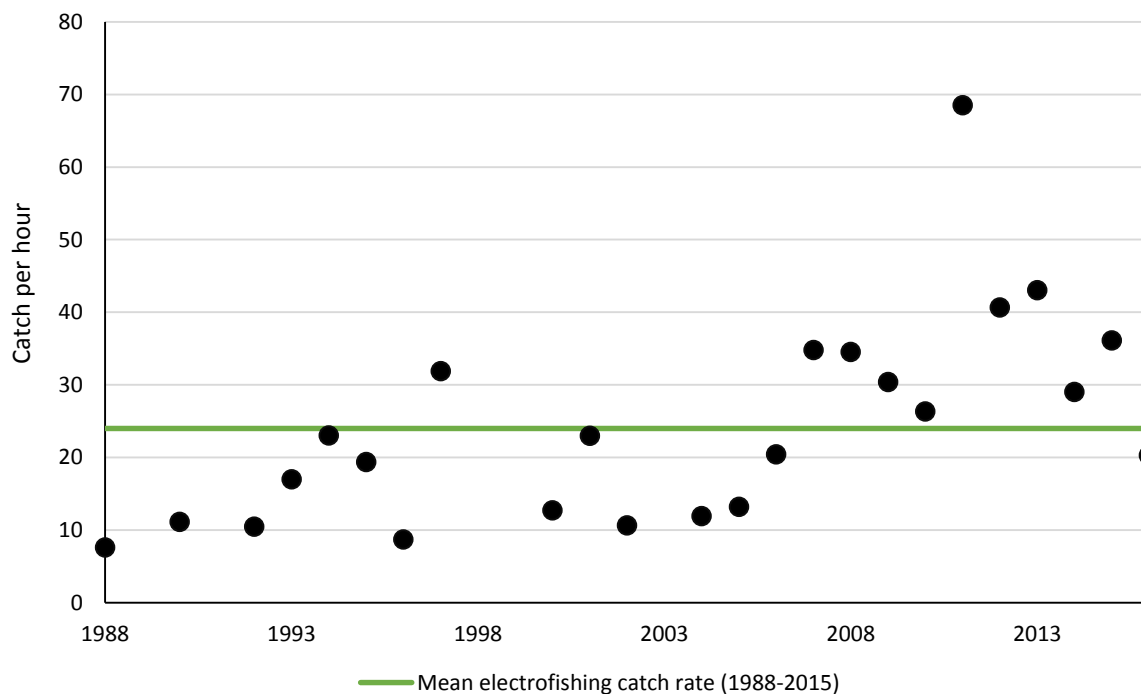


Figure 3. Average annual fall electrofishing catch of smallmouth bass >11 inches in the upper Potomac River (1988-2016).

Smallmouth bass regulations in Maryland

- Minimum Size – 12 inches
- Season – Closed March 1–June 15 (Catch and Release is permitted at all times)
- Creel Limit – 5
- Catch-and-Return Bass Fishing Area – Dam 2 (Seneca Breaks) upstream to mouth of the Monocacy River

For more information of question regarding the upper Potomac River fisheries, please contact Michael Kashiwagi (Michael.kashiwagi@maryland.gov).